This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

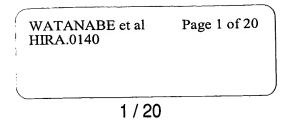
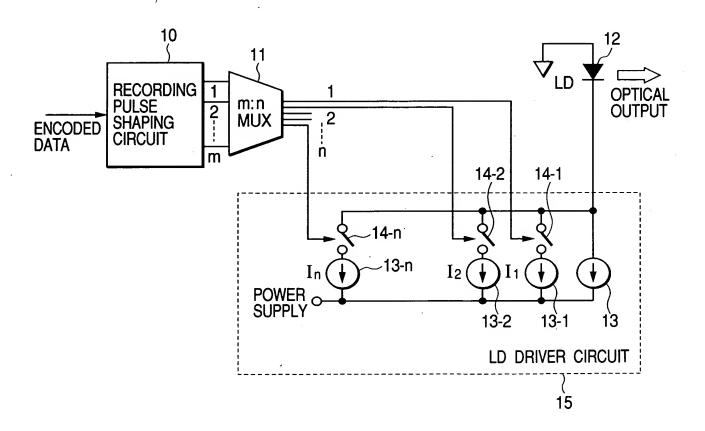


FIG. 1



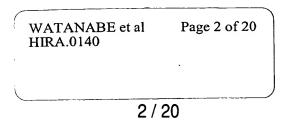
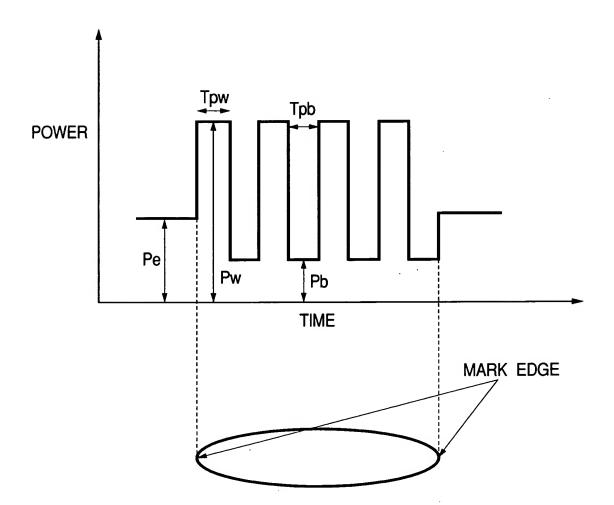


FIG. 2



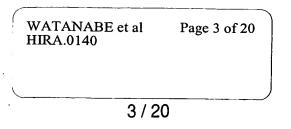
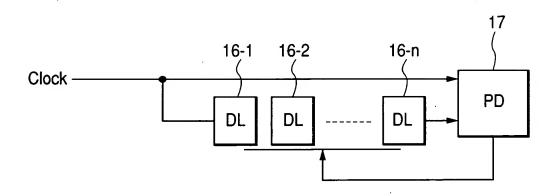


FIG. 3



DL: DELAY LINE

PD: PHASE DETECTOR

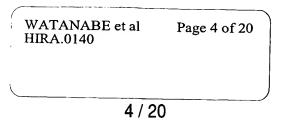
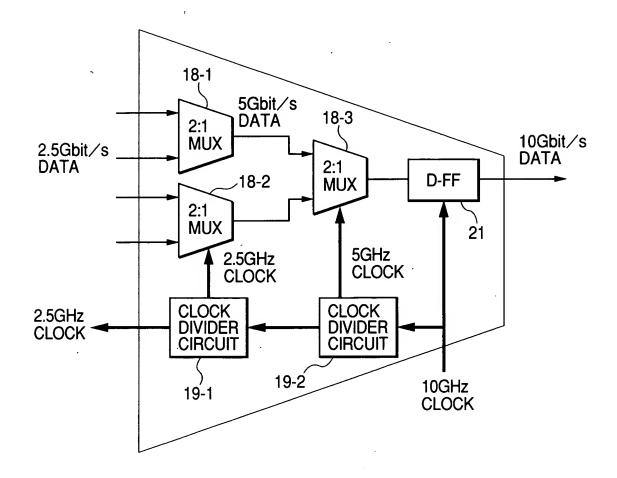


FIG. 4



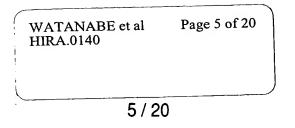
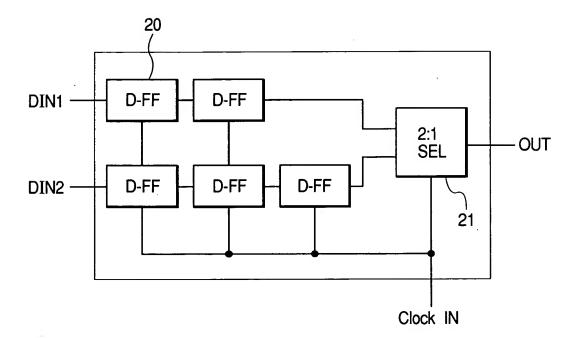
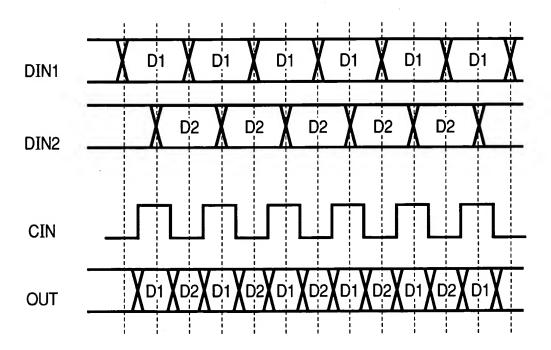


FIG. 5



WATANABE et al Page 6 of 20 HIRA.0140

FIG. 6



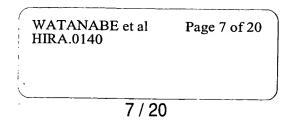


FIG. 7A

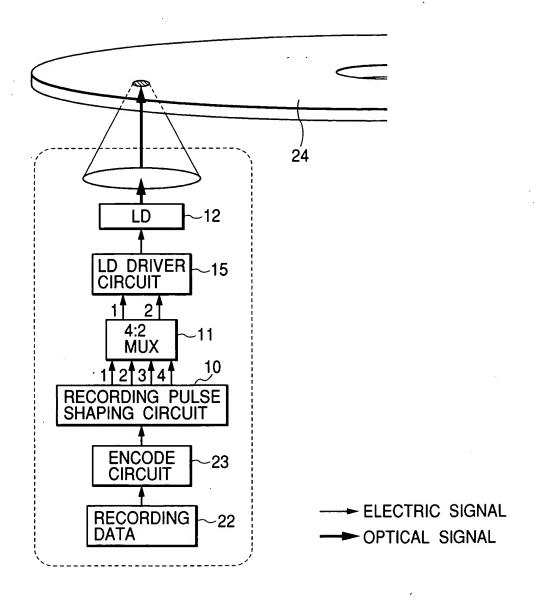
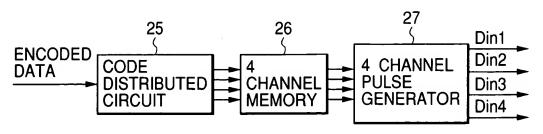


FIG. 7B



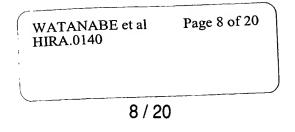
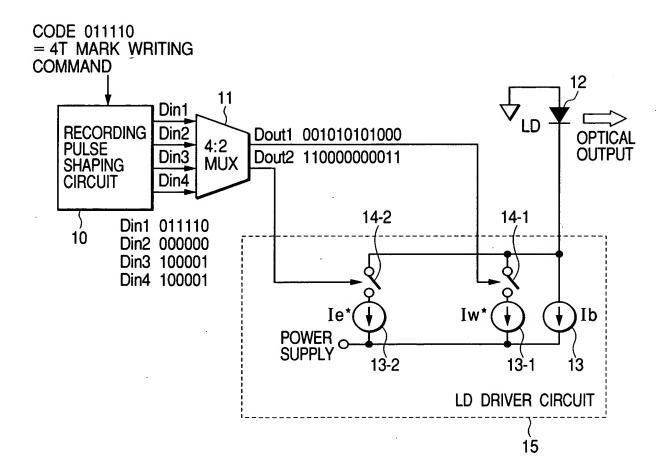


FIG. 8



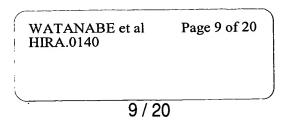
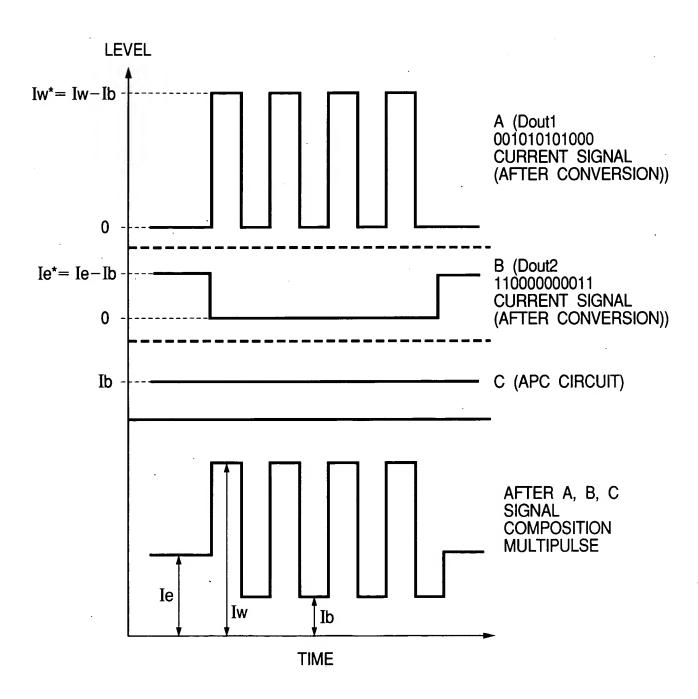


FIG. 9



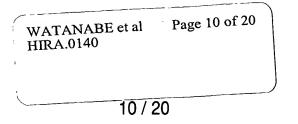


FIG. 10A

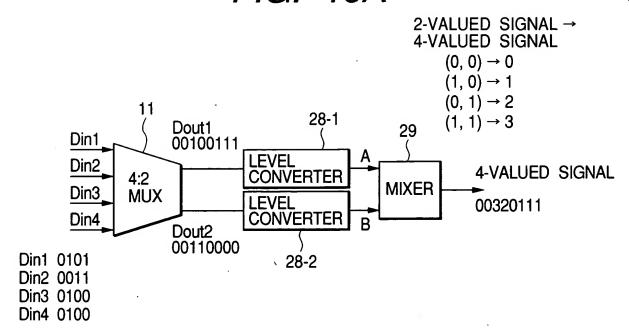
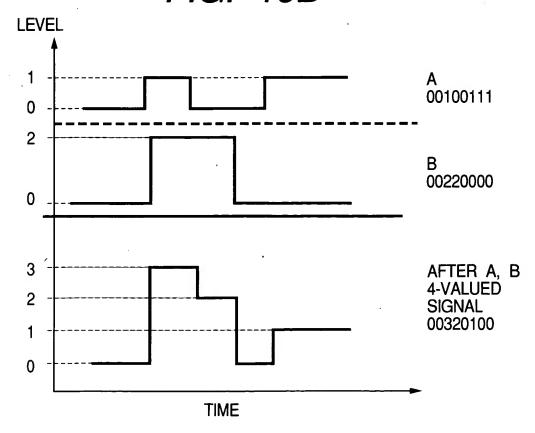


FIG. 10B



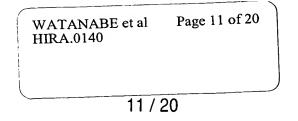
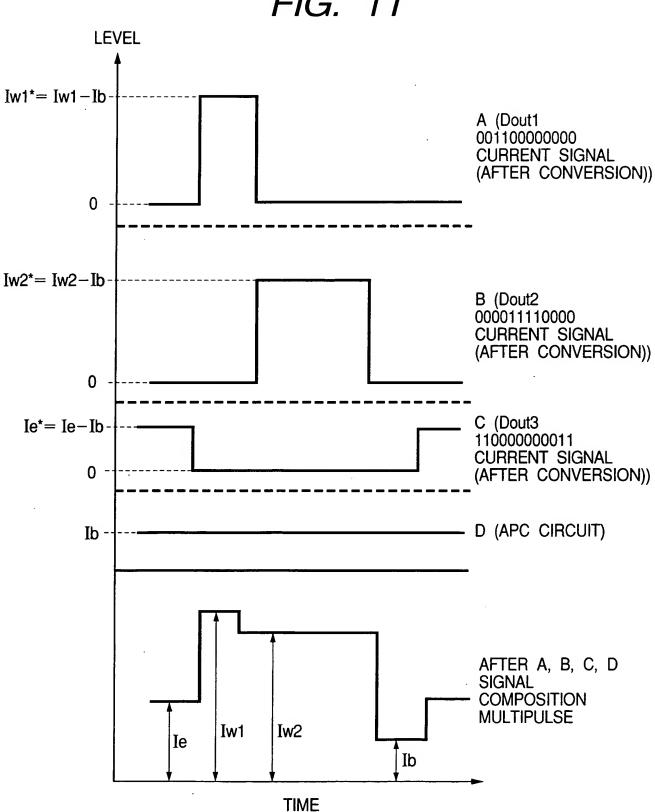
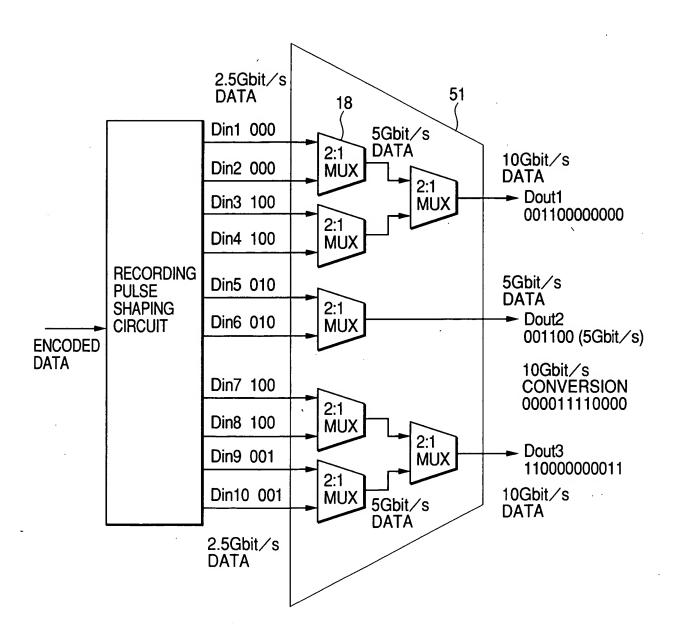


FIG. 11



WATANABE et al Page 12 of 20 HIRA.0140

FIG. 12



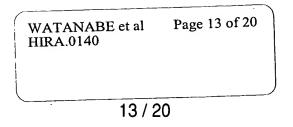
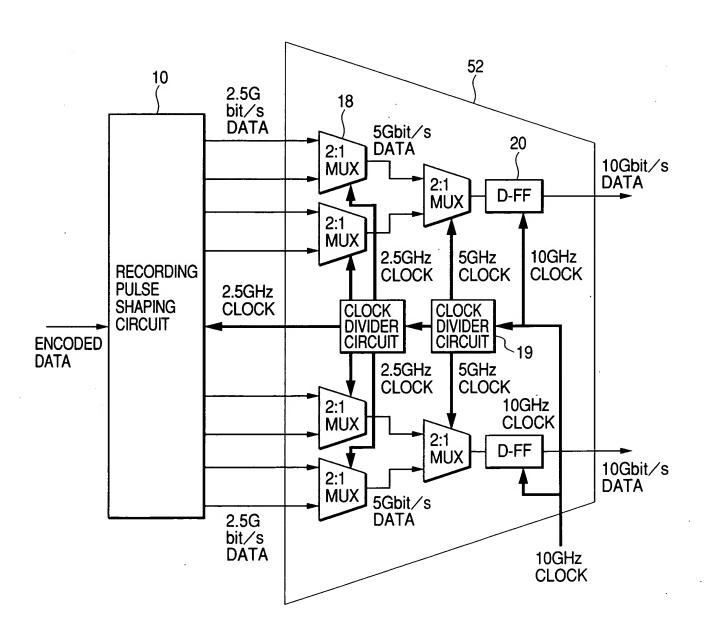
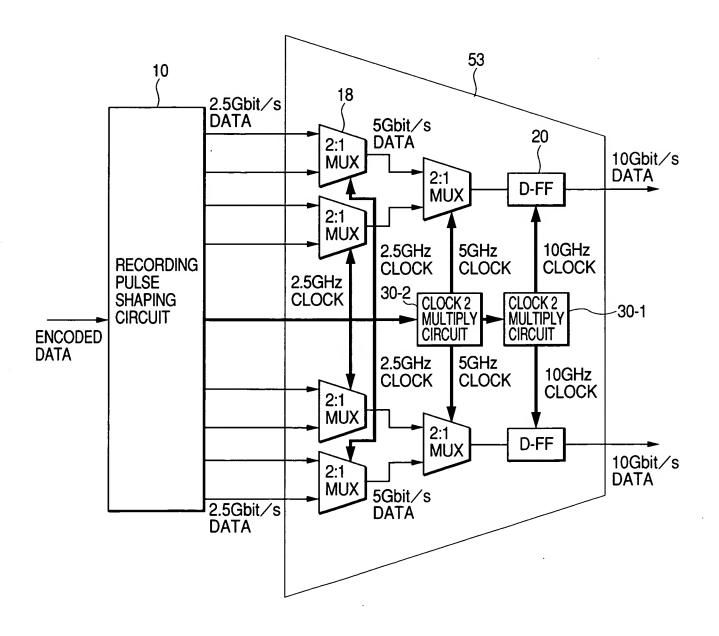


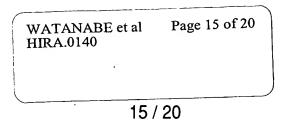
FIG. 13



WATANABE et al Page 14 of 20 HIRA.0140

FIG. 14





LD DRIVER CIRCUIT 5 RECORDING CURRENT-n

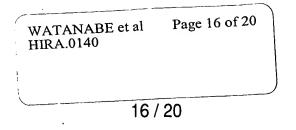
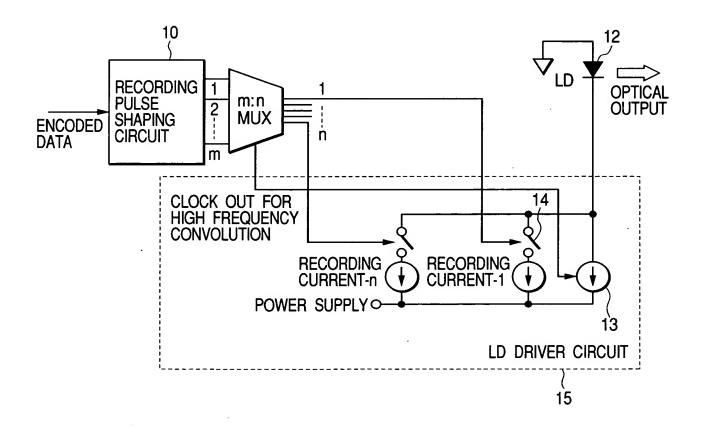


FIG. 16



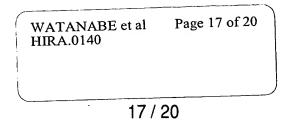


FIG. 17A

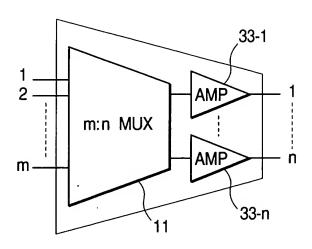
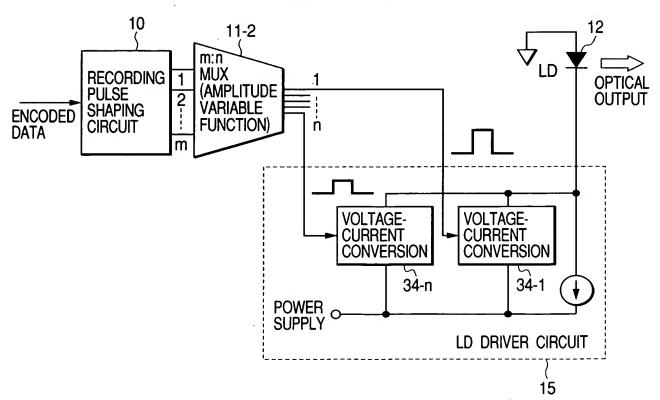


FIG. 17B



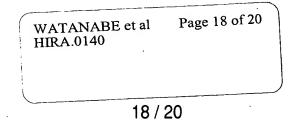


FIG. 18A

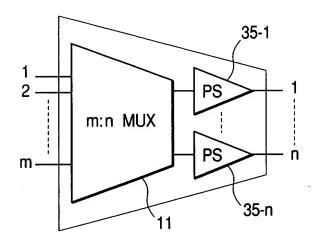
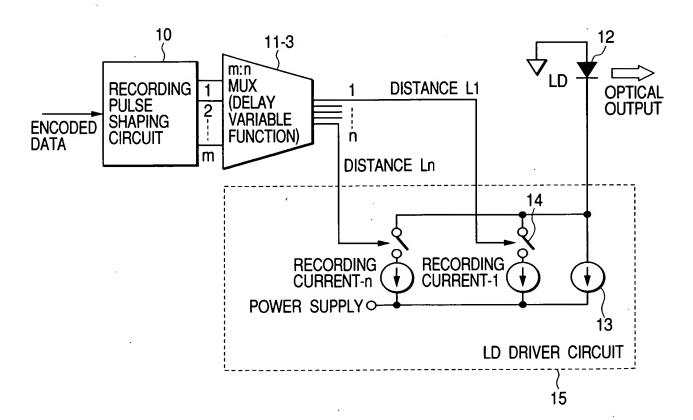


FIG. 18B



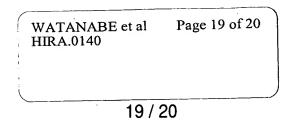
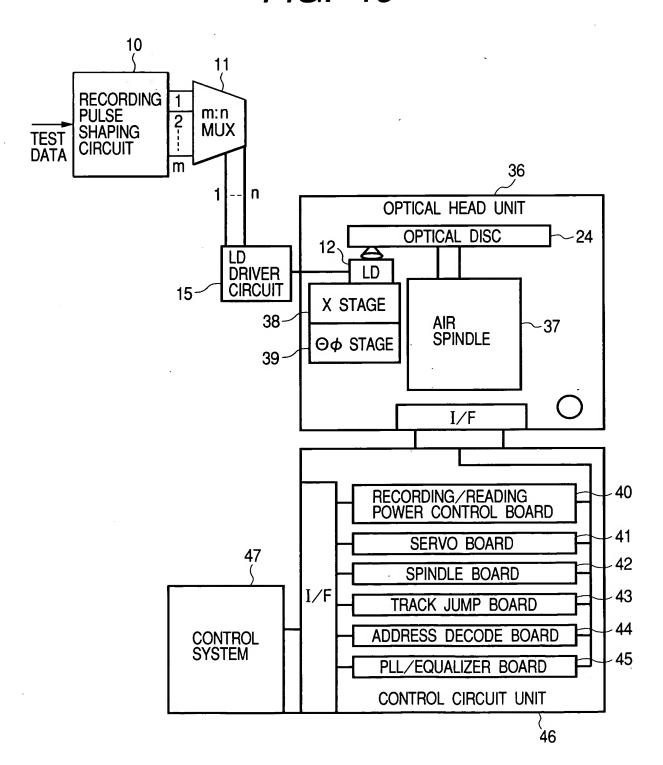


FIG. 19



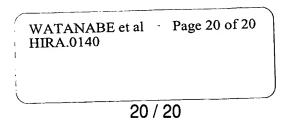


FIG. 20A

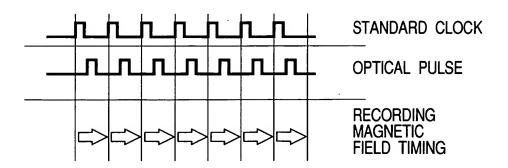


FIG. 20B

